Preliminary Amendment
Application No.: filed concurrently
December 27, 2004

IN THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claim 1 (Currently amended): A nitride semiconductor laser device provided with a window layer on a light-emitting end face of ~~the~~ a resonator which comprises an active layer of a nitride semiconductor between ~~the~~ n-type nitride semiconductor layers and ~~the~~ p-type nitride semiconductor layers, ~~characterized in that~~ wherein:

at least ~~the~~ a radiation-emitting end face of said resonator is covered by said window layer comprising monocrystalline nitride of general formula $Al_xGa_{1-x-y}In_yN$, where $0 \leq x+y \leq 1$, $0 \leq x \leq 1$ and $0 \leq y < 1$, ~~especially nitride of general formula $Al_xGa_{1-x}N$ $(0 \leq x \leq 1)$~~ having a wider energy gap than that of ~~the~~ a active layer and being formed at a low temperature so as not to damage said active layer.

Claim 2 (Currently amended): The nitride semiconductor laser device according to claim 1, ~~characterized in that~~ wherein ~~the~~ a thickness of the end face window layer is higher than 50 Å,

and is equal to an integer multiplicity of the emitted radiation ~~wave length~~ wavelength ($n\lambda$).

Claim 3 (Currently amended): The nitride semiconductor laser device according to claim 1, ~~characterized in that~~ wherein the end face window layer is of monocrystalline $Al_xGa_{1-x}N$ ($0 \leq x \leq 1$) and is formed in ~~the~~ a supercritical ammonia-containing solution.

Claim 4 (Currently amended): The nitride semiconductor laser device according to claim 3, ~~characterized in that~~ wherein at least ~~the~~ a p-type contact layer of the resonator is covered by a mask.

Claim 5 (Currently amended): The nitride semiconductor laser device according to claim 3, ~~characterized in that~~ wherein the ~~resonator~~ end face window layer ~~contains~~ comprises at least one of the elements of Group I.

Claim 6 (Currently amended): The nitride semiconductor laser device according to claim 1, ~~characterized in that~~ wherein the resonator active layer has a structure of a ~~(multi) quantum well~~ multiquantum-well layer comprising at least one InGaN well layer or InAlGaN well layer.

Claim 7 (Currently amended): The nitride semiconductor laser device according to ~~any one of claims 1 to 6~~ claim 1, ~~characterized in that~~ wherein the nitride semiconductor laser device structure is formed on ~~the~~ a substrate selected from the group consisting of a GaN substrate, ~~preferably~~ monocrystalline GaN substrate, sapphire substrate, spinel substrate, ZnO substrate, SiC substrate, ELOG-type substrate and a substrate provided with a nitride semiconductor having a concavo-convex face.

Claim 8 (Currently amended): The nitride semiconductor laser device according to ~~any one of claims 1 to 7~~ claim 7, ~~characterized in that~~ wherein the nitride semiconductor laser device structure is formed on a C-plane, A-plane or M-plane of the monocrystalline GaN substrate.

Claim 9 (Currently amended): The nitride semiconductor laser device according to claim 1, ~~characterized in that~~ wherein the nitride semiconductor laser device structure is formed on a C-plane of a monocrystalline GaN substrate and the resonator end face window layer is grown on an M-plane or A-plane.

Claim 10 (Currently amended): The nitride semiconductor laser device according to claim 1, ~~characterized in that~~ wherein the nitride semiconductor laser device structure is formed on an A-plane of a monocrystalline GaN substrate, and the window layer is formed on a C-plane or M-plane of ~~the~~ a resonator radiation-emitting end face.

Claim 11 (Currently amended): The nitride semiconductor laser device according to claim 1, ~~characterized in that~~ wherein the nitride semiconductor laser device structure is formed on an M-plane of a monocrystalline GaN substrate, and the window layer is formed on a C-plane or A-plane of ~~the~~ a resonator radiation-emitting end face.

Claim 12 (Currently amended): A method for improving the performance of a nitride semiconductor laser device having a resonator including an active layer comprising a nitride semiconductor between an n-type nitride semiconductor layer and a p-type nitride semiconductor layer, in which in a first process a laser device structure is etched or cleaved and a pair of the opposite resonator end faces are formed, ~~characterized in that~~ and wherein

in a second process the radiation-emitting end face of said resonator is covered by a window layer of monocrystalline nitride of general formula $Al_xGa_{1-x-y}In_yN$, where $0 \leq x+y \leq 1$, $0 \leq x \leq 1$ and $0 \leq y < 1$, ~~especially nitride of general formula $Al_xGa_{1-x}N$ $(0 \leq x \leq 1)$,~~ having a wider energy gap than that of the active layer, at low temperature so as not to damage said active layer.

Claim 13 (Currently amended): The method for improving the performance of a nitride semiconductor laser device according to claim 12, ~~characterized in that~~ wherein during the second process the resonator end face window layer is formed in supercritical ammonia-containing solution.

Claim 14 (Currently amended): The method for improving the performance of a nitride semiconductor laser device according to claim 13, ~~characterized in that~~ wherein during the second process the resonator end face window layer is formed after at least an upper surface of resonator p-type contact layer is covered by a mask having ~~higher or same~~ at least an equal chemical resistance ~~than~~ as that of an end face window layer material in a supercritical ammonia-containing solution.

Claim 15 (Currently amended): The method for improving the performance of a nitride semiconductor laser device according to claim 14, ~~characterized in that~~ wherein the mask is selected from the group consisting of SiO_2, Si_3N_4, AlN and Ag.

Claim 16 (Currently amended): The method for improving the performance of a nitride semiconductor laser device according to claim 12, ~~characterized in that~~ wherein the resonator end face window layer is formed by depositing the monocrystalline nitride layer in ~~the~~ a supercritical ammonia-containing solution at a temperature of 800°C or less~~, preferably 600°C or less~~.

Please add new claims 17-18 as follows:

Claim 17 (New): The method for improving the performance of a nitride semiconductor laser device according to claim 16, wherein said step of forming the resonator end face window layer includes depositing the monocrystalline nitride at 600°C or less.

Claim 18 (New): The method for improving the performance of a nitride semiconductor laser device according to claim 16, wherein the monocrystalline nitride has a general formula of $Al_xGa_{1-x}N$ $(0 \leq x \leq 1)$.